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LENOVO (US) IP Law			EXAMINER	
1009 Think Place			LOUIE, OSCAR A	
Building One, 4th Floor 4B6			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/736,016	Applicant(s) OGATA, EIJI
	Examiner OSCAR A. LOUIE	Art Unit 2436

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on **24 April 2008**.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) **1,2 and 22-27** is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) **1,2 and 22-27** is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-646)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

DETAILED ACTION

This final action is in response to the amendment filed on 04/24/2008. Claims 1, 2, & 22-27 are pending and have been considered as follows.

*Examiner Note*

In light of the applicant's amendments the examiner hereby withdraws his previous Drawings Objection(s), Specification Objection(s), & 35 U.S.C. 101 rejections.

*Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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2. Claims 1 & 24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7290276. Although the conflicting claims are not identical, they are not patentably distinct from each other because despite the slight difference in claim language, the scope and limitations are still effectively the same between the independent claims 1 & 24 of the 10736016 application and claim 1 of U.S. Patent No. 7290276. Much of the language is very similar if not the same between several of the limitations as can be seen upon direct comparison.

In addition to adhering to the above, the examiner recommends amending the claims of the 10736016 application in order to distinguish the two inventions from each other.

*Specification*

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- Claim 24 recites “a computer readable storage medium” which appears to lack antecedent basis in light of the applicant’s Specification:
  - o The examiner notes that page 19 of the applicant’s Specification does provide support for “replaceable medium,” page 6 provides support for “hard disk” and “floppy disk,” page 15 provides support for “EEPROM,” etc.;
  - o In addition, it is also noted that although the applicant’s disclosure does not explicitly disclose “having a computer program” where suggestion is made that the program is stored on the medium/memory, the applicant’s disclosure,

particularly their Specification, appears to provide sufficient support if not suggestion for programs stored on a medium/memory where the programs comprise instructions which perform method steps upon execution by a processor;

*Claim Objections*

4. Claims 1, 2, & 24 are objected to because of the following informalities:
  - Claim 1 line 1 recites “for” which should be “...of...” to maintain consistency of language with dependent claims 2, 22, & 23;
  - Claim 2 line 3 recites “an user” which should be “a user”;
  - Claim 24 line 1 recites “program for” which should be “...program configured for...”;Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 1, 23, 24, & 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - Claim 1 recites limitations for what appears to be restoring a security key in the security hardware based on some predetermined data, however, there appears to be some disconnect between the group of limitations pertaining to storing, authentication of the security key, cancellation, and the limitations pertaining to the restoration aspects; that

is, additional limitations which would tie the applicant's invention together as claimed would better define the scope and heart of the applicant's invention, thus providing better clarity than the current set of claims which leaves ambiguity as to when, how, and under what conditions does the restoration take place (especially since it appears that the details with respect to restoration are the major parts of the applicant' invention);

- Specifically, the first set of limitations details the authentication and execution of either a first or second operating system, including cancellation under certain conditions and releasing the cancellation under alternative conditions, but the restoration limitations appear to not fit in with these limitations (i.e. the Specification appears to disclose aspects pertaining to a detected change in the components of the hardware system requiring the security key to change/update accordingly, however, there are no such details in the current claims);
- Claims 23 & 27 recite "said auxiliary storage storing said second operating system" however, the choice of phrasing creates some confusion as to whether it is meant as the "auxiliary storage" which stores the second operating system, or that upon the condition of "when a second operating system is readable from said auxiliary storage" to store the second operating system;
  - The examiner has interpreted these claims to be the "auxiliary storage" which stores the second operating system and not that the storage stores the second operating system as a result of a condition;

- Claim 24 recites “a computer program” and “instructions for,” however, it is unclear as to whether the program and instructions are the same or if the program comprises instructions which perform the method steps as claimed;
  - o The examiner has interpreted Claim 24 to be the “computer program” comprising “instructions” which perform the method steps claimed;

*Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, & 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heptig et al. (US-5377269-A) in view of Tello (US-6463537-B1).

Claims 1 & 24:

Heptig et al. disclose a method/a computer readable storage medium having a computer program for controlling an information processing apparatus comprising,

- “storing security key information in a security hardware” (i.e. “electronic key”) [column 12 line 5];
- “in response to an operating system attempting to start, determining by an OS start admission circuit whether or not input data for user certification is valid based on said security key information read from said security hardware” (i.e. “In step 930, the key 14

- data is compared to the data in an authorized electronic key data file stored in the memory 31, and a determination is made whether the key 14 is authorized") [column 12 lines 14-17];
- "permitting said operating system to start when said determination result is positive" (i.e. "In step 940, the FIRMLOC.EXE program exits to the operating system") [column 12 lines 52-54];
  - "selectively executing either a first type OS start to generate a first system status in which said security key information restoration circuit can operate said OS start admission circuit or a second type OS start to generate a second system status in which said security key information restoration circuit cannot operate said OS start admission circuit" (i.e. "If in step 1240 an authorized key 14 was detected on the parallel printer port 50, execution proceeds to step 1244 where the key 14 data and the system time are recorded as an "authorized access") [column 15 lines 60-63];
  - "canceling the operation of said OS start admission circuit by a cancellation circuit as to said first type OS start" (i.e. "The interrupt 2fh routine is called during initial boot-up in step 220 of FIG. 2 during execution of the device driver routine (LOCKIT.SYS) to disable the keyboard 35 and also in step 938 of FIG. 9b during execution of the 10ad access prevention routine (FIRMLOC.EXE) to save or retrieve the port 50 address, IRQ mask byte and number of keys") [column 13 lines 43-49];
  - "releasing cancellation of the operation of said OS start admission circuit by said cancellation circuit after said first type OS start having the operation of said OS start admission circuit canceled by said cancellation circuit has been executed at least once"

(i.e. "In step 1024, if an authorized key 14 detected, execution proceeds to step 1026; otherwise, execution loops back to step 1024 until an authorized key 14 is detected and execution proceeds to step 1026") [column 13 lines 21-25];

but, they do not explicitly disclose,

- "restoring said security key information in said security hardware by a security key information restoration circuit based on predetermined data for restoration," although Tello does suggest updating security configuration and/or personal identification data, as recited below;
- "wherein said predetermined data for restoration is generated when generating said security key information within said security hardware in order to render said security key information freely restorable and is stored in an auxiliary storage," although Tello does suggest updating information/data where the updated information/data is based on information derived, as recited below;

however, Tello does disclose,

- "The procedure for changing the personal identification data or the security configuration parameters is shown in FIGS. 13Q, 13R, 13S, 13T & 13U. During the boot phase of the computer's start up procedure, the personal information and security configuration stored in both the security engine and smart card memories may be changed if the proper authorization is provided 791" [column 32 lines 6-12];

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- "If the authentication procedure is successful, changes can be made to the identification data and are written to the appropriate security engine look up table in the scratch memory of the security engine 825 and the internal memory of the inserted Master smart card" [column 33 lines 1-5];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "restoring said security key information in said security hardware by a security key information restoration circuit based on predetermined data for restoration" and "wherein said predetermined data for restoration is generated when generating said security key information within said security hardware in order to render said security key information freely restorable and is stored in an auxiliary storage," in the invention as disclosed by Heptig et al. for the purposes of providing key updating and configuration updating.

Claims 2 & 25:

Heptig et al. and Tello disclose a method/a computer readable storage medium having a computer program for controlling an information processing apparatus, as in Claims 1 & 24 above, their combination further comprising,

- "said input data for user certification is data keyed in by an user on said first type OS start" (i.e. "After the present invention is installed on the PC 10, it will be necessary for a user to insert an electronic key 14 into the jack 16 to access the system") [column 17 lines 57-59].

## Claims 22 &amp; 26:

Heptig et al. and Tello disclose a method/a computer readable storage medium having a computer program for controlling an information processing apparatus, as in Claims 1 & 24 above, their combination further comprising,

- “wherein said first and second type OS starts are starts based on the same OS stored in the same auxiliary storage” (i.e. “In the present embodiment, the PC 10 is an IBM-compatible computer using either MS-DOS or PC-DOS as its disk operating system stored in the system memory 31”) [column 5 lines 55-58];
- “when starting said operating system, said OS start type selection circuit detects whether or not a predetermined user operation is performed so as to select and execute said first type OS start or said second type OS start” (i.e. “it is determined whether the electronic key 14 present on the parallel printer port 50
- is an authorized key 14. If it is an authorized key 14, execution proceeds to step 1226...If in step 1224 it is determined that the electronic key 14 present on the parallel printer port 50 is not an authorized key 14, or if there is no key 14 detected on parallel printer port 50, execution proceeds to step 1228”) [column 15 lines 10-13 & lines 16-19].

## Claims 23 &amp; 27:

Heptig et al. and Tello disclose a method/a computer readable storage medium having a computer program for controlling an information processing apparatus, as in Claims 1 & 24 above, their combination further comprising,

- “wherein said first and second type OS starts are starts based on two operating systems, each being stored in a different auxiliary storage” (i.e. “In step 212, the PC 10 reads the

floppy disk to determine whether it is a valid boot-up disk. A valid boot-up disk is defined as a floppy disk containing the required operating system files to install an operating system in the PC's 10 memory. If in step 212 it is determined that the floppy disk is a valid boot-up disk, then execution normally proceeds to step 214. In step 214 the PC 10 boots-up from the floppy disk drive 16") [column 6 lines 38-45];

- "when a second operating system is readable from said auxiliary storage storing said second operating system, said OS start type selection circuit selects and executes said second type OS start in preference over said first type OS start" (i.e. "If in step 1224 it is determined that the electronic key 14 present on the parallel printer port 50 is not an authorized key 14, or if there is no key 14 detected on parallel printer port 50, execution proceeds to step 1228") [column 15 lines 16-19].

*Response to Arguments*

9. Applicant's arguments with respect to claims 1, 2, & 22-27 have been considered but are moot in view of the new ground(s) of rejection as necessitated by the applicant's amendments.

*Conclusion*

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- a. Hale et al. (US-5355414-A) - computer security system utilizing user input authentication;

- b. McClung et al. (US-4951249-A) - secure system utilizing user entered password/PIN;
  - c. Lee et al. (US-6367011-B1) – similar aspects as above and as claimed invention;
  - d. Goodman et al. (US-5402492) - updating key stored in memory;
  - e. Geffrotin (US-5146499) - data processing authentication via smartcard;
10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Oscar Louie whose telephone number is 571-270-1684. The examiner can normally be reached Monday through Thursday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami, can be reached at 571-272-4195. The fax phone number for Formal or Official faxes to Technology Center 2400 is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OAL  
02/18/2009

/Nasser G Moazzami/  
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